

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	MB Docket No. 05-312
Digital Television Distributed Transmission)	
System Technologies)	

COMMENTS OF HARRIS CORPORATION

Harris Corporation (“Harris”) respectfully submits these comments in response to the Federal Communications Commission’s (“Commission’s” or “FCC”) Notice of Proposed Rulemaking (“NPRM”) in the above-captioned proceeding proposing rules to govern distributed transmission system (“DTS”) operations.¹

Harris is an international communications equipment company with four operating divisions that offer products and services in the microwave, broadcast, secure tactical radio, and government communications systems markets. As the world’s leading broadcast transmission equipment supplier, Harris’ Broadcast Communication Division is the leader in digital solutions for television and radio broadcasting and has been at the forefront of the transition to digital television, supplying the majority of the digital radio and television transmitters and encoders in the United States.

¹ In the Matter of Digital Television Distributed Transmission System Technologies, *Clarification Order and Notice of Proposed Rulemaking*, MB Docket No. 05-312, rel. Nov. 4, 2005 (hereinafter “NPRM”).

Harris commends the Commission for its diligent work in ensuring that the transition to DTV is one that is completed as expeditiously as possible and in a manner that serves the best interests of American consumers. The DTS rulemaking is further evidence of the Commission's commitment to ensuring a successful digital television transition. The transition is more of a reality today than ever before, now that the Congress passed legislation establishing a hard date of February 17, 2009 for the termination of analog transmissions. The broadcast industry is moving forward not only in transitioning to digital but in recognizing the potential the digital transition provides for creating new products and services as well as revenue streams.

During the *Second DTV Periodic Report & Order*, the Commission decided to permit interim DTS operations if they provided predicted service only within a station's currently authorized area.² In the Commission's current DTS rulemaking, the Commission seeks additional comments on the use of DTS technologies and how DTS would work with all DTV receivers. To that end, Harris urges the Commission to consider the following issues: 1) licensees that opt to use DTS in lieu of the traditional single transmitter should be allowed to apply for facilities to serve an area generally comparable to the area they could cover with a single transmitter; 2) the existing rules for DTV stations should be applied to distributed transmitters, except in situations where low

² *Second DTV Periodic Report and Order*, 19 FCC Rcd at 18356-57, ¶¶ 177-78.

power transmitters are used; and, 3) the Commission should not mandate a synchronization standard.

I. DTS Operators Should Be Allowed to Serve Area Comparable to Area Served By Single-Transmitter.

Harris supports the Commission's proposal to limit the area that a station can serve from its DTS operation to the equivalent of the area it could serve using a single-transmitter. Harris believes that the Merrill Weiss Group's proposals: the "DMA approach" and the "Maximized DTV Contour approach" are both viable options. However, Harris believes that the objective in adopting any proposal should be to maximize coverage area to ensure that all consumers currently served by the analog signal are provided with access to the digital service. If the Commission were to permit DTS service providers to "pick and choose" the area to be covered—the Commission risks potentially disenfranchising a portion of the community within a DMA.

II. The Commission Should Apply Existing Rules for DTV Stations to Distributed Transmitters Except in Situations Involving Low-Power Operations.

Harris supports the Commission's proposal to apply the existing rules for DTV station to DTS. Harris agrees with the Commission that there is no reason to impose different limits on the maximum power and antenna height for each distributed transmitter than the limits specified in section 73.622(f)(5) for single transmitter DTV stations.

Moreover, Harris agrees with the Commission that there will be no adverse impact on other stations if it requires that each high-power transmitter in a DTS system conform to the maximum power and emission mask

requirements applicable to single, high-power transmitter DTV stations. As the Commission noted, this approach should offer DTS stations flexibility in designing their system to maximize DTV service while limiting their potential interference in light of the service area limitations and interference protection requirements proposed in the *NPRM*. Since the emission mask is generally intended to control interference radiated in adjacent channels, there is no reason that control of such radiation should be different from transmitters in distributed transmission networks than it should be from single transmitters. However, Harris requests that the Commission consider imposing relaxed emission designator mask requirements to very low power transmitters, more likely to be used in secondary services, such as DTV boosters and translators. For example, if a primarily licensed system needs a transmitter with a power of 10 watts, in the repeater/translator class, why not allow that particular transmitter to have relaxed emission mask designators.

Identifying the threshold for less stringent mask requirements could be accomplished in various ways. The Commission, in the *Second Periodic Review*, suggested that a threshold based either on the power output of the transmitter or on the effective radiated power of the facility would be the easiest approach to administer. Alternatively, a threshold based upon a combination of transmitter power and antenna height or upon the farthest distance to a specified contour could be used as a threshold to account for the overall interference-causing capability of the facility. By doing so, the Commission would ensure the most cost effective equipment is deployed efficiently and effectively.

III. The Commission Should Not Mandate Use of Any Synchronization Standard.

As the Commission is aware, the ATSC has approved standard A/110A, titled “Synchronization Standard for Distributed Transmission.” Harris supports the Commission’s recommendation that, given the early stage of development of DTS, it may not be prudent at this time to “mandate compliance with this, or any other, synchronization standard.”³ As the Commission is aware, there is industry activity currently underway that may enable alternate methods of synchronization. Thus, requiring compliance with a particular synchronization standard may impede the development of new technologies at this time. Although Harris participates and supports standards setting activities because of all the inherent benefits such activities provide, e.g., interoperability, Harris urges the Commission to wait before imposing any standard on DTS providers. The Commission should also consider that current developments may be harmonized with ATSC A/110A, potentially yielding a more robust method for synchronization.

IV. Conclusion

Harris commends the Commission for undertaking this rulemaking. The proposals outlined in the NPRM demonstrate a commitment to the successful deployment of DTS. Harris urges the Commission to adopt expeditiously a final Report and Order outlining the rules for DTS thereby

³ *NPRM* at para. 33.

ensuring that DTS is implemented in a timely fashion so that more Americans have access to digital services.

Respectfully Submitted,

HARRIS CORPORATION

Jay Adrick
Vice President
Broadcast Technology